

### **REMARKS**

Claims 1, 2, 8, 11, and 12 stand rejected under 35 U.S.C. 102 (b) as anticipated by Kozdon, et. al, U.S. Patent 6240070 (hereinafter Kozdon).

Claims 3 and 10 stand rejected under 35 U.S.C. 103 as being obvious over Kozdon in view of Kuthyar, et. al., U.S. Patent 6075571 (hereinafter Kuthyar).

Claim 4 stands rejected under 35 U.S.C. 103 as being obvious over Kozdon in view of Everett, U.S. Patent 5864816, hereinafter Everett.

Claim 5, stands rejected under 35 U.S.C. 103 as being obvious over Kozdon in view of Everett, and in further view of Memhard, U.S. Patent 6201859, hereinafter Memhard.

Claim 6 stands rejected under 35 U.S.C. 103 as being obvious over Kozdon in view of Everett, and in further view of Robert, U.S. Patent 6327276, hereinafter Robert.

Claim 7 stands rejected under 35 U.S.C. 103 as being obvious over Kozdon in view of Kilgore, U.S. Patent 6961324.

Claim 9 stands rejected under 35 U.S.C. 103 as being obvious over Kozdon in view of Robert.

Claim 13 stands rejected under 35 U.S.C. 103 (a) as being obvious over Kozdon in view of Coupe, U.S. Patent Publication 2002/0064189A1, hereinafter Coupe.

Claim 14 stands rejected under 35 U.S.C. 103 (a) as being obvious over Kozdon in view of Coupe, in further view of Menhard.

### **Changes to the Figures**

As requested by the Examiner, in Figure 4, reference character 403 has been moved to indicate the block header. This is now consistent with the text of paragraph 0022.

### **The Amended Claims**

Claim 1 has been amended, as suggested by the examiner, to more clearly provide antecedent basis for several clauses. Claim 1 has also been amended to require relaying by the server of a plurality of audio streams.

Claims 2 has been amended, as suggested by the examiner, to more clearly provide antecedent basis for several clauses.

Claim 8 has been amended, as suggested by the examiner, to more clearly provide antecedent basis for several clauses. Claim 8 has also been amended to incorporate most limitations of former Claim 9, including that the selected audio streams must be selected such

that audio from the first said conferencing station is not decompressed by the first conferencing station.

Claim 11 has been amended, as suggested by the examiner, to more clearly provide antecedent basis for several clauses. Further, Claim 11 has been amended to clarify that the computer software product comprises code for execution on a conferencing station. Further, Claim 11 has been amended such that the mixing module excludes the audio stream from mixing that was generated by the conferencing station on which the program product executes.

Claim 12 has been amended, as suggested by the examiner, to more clearly provide antecedent basis for several clauses. Further, claim 12 has been clarified to require that combining the compressed audio streams into a composite stream is performed without mixing.

### **35 U.S.C. 102 Rejections**

Claims 1, 2, 8, 11, and 12 stand rejected under 35 U.S.C. 102 (b) as anticipated by Kozdon, et. al, U.S. Patent 6240070 (hereinafter Kozdon).

Kozdon describes a conferencing system comprising a server and multiple conferencing stations. Each conferencing station of Kozdon sends an audio stream to the server.

The server of Kozdon has a mixing module that decompresses, and mixes, several input audio streams from conferencing stations to create a mixed audio stream, the mixed audio stream is then compressed. Kozdon's server also has a selection module that selects a dominant audio stream from the several input audio streams. The mixed and dominant audio streams are distributed over a network to individual conferencing stations, where they are decompressed, selected and/or mixed, and presented to users.

Kozdon differs from Applicant's disclosed device in that only one unmixed audio stream, the dominant audio stream, is relayed by the server to the conferencing stations. The second stream transmitted by Kozdon's server to conferencing stations is a mixed stream generated by the server by decompressing, mixing, and recompressing multiple audio streams.

### **Claim 1 and 2**

Applicant's device of Claim 1, as amended, requires that the server relay "*a plurality of* compressed audio streams received by the server from conferencing stations." Kozdon fails to provide this element since only one compressed audio stream, the dominant stream, is *relayed* by the server.

Applicant's device of Claim 2 inherits the limitations of, and arguments related to, Claim 1.

Kozdon therefore fails to anticipate either Claim 1 or Claim 2 under 35 U.S.C. 102. Reconsideration of the amended Claims 1 and 2 is therefore respectfully requested.

#### **Claim 8**

Applicant's device of Claim 8, as amended, incorporates the material of former Claim 9 relating to selection by the conferencing station of streams for decoding and mixing that exclude any stream from the first conferencing station. Kozdon fails to disclose automatically excluding a stream from the mixing process.

Kozdon therefore fails to anticipate Claim 8 under 35 U.S.C. 102.

#### **Claim 11**

Applicant's device of Claim 11, as amended, incorporates selection by the mixer module of the first conferencing station streams for decoding and mixing that exclude any stream from the first conferencing station. Kozdon fails to disclose automatically excluding a stream from the mixing process.

Kozdon therefore fails to anticipate Claim 11 under 35 U.S.C. 102.

#### **Claim 12**

Applicant's device of Claim 12, as amended, requires that the composite stream be created by the server without decoding and mixing. Kozdon specifically discloses a system that decodes and mixes audio on the server.

Kozdon therefore fails to anticipate Claim 11 under 35 U.S.C. 102.

### **35 U.S.C. 103 Rejections**

#### **Claims 3 and 10; also claim 1**

Claims 3 and 10 stand rejected under 35 U.S.C. 103 as being obvious over Kozdon in view of Kuthyar, et. al., U.S. Patent 6075571 (hereinafter Kuthyar). The Examiner relied upon Kuthyar for the additional element of video.

These claims depend on the amended Claims 1 and 8, each of which has elements not found in either Kozdon or Kuthyar; and thus are not found in Kozdon in view of Kuthyar.

Parent Claim 1, as amended, requires that more than one compressed audio stream be relayed to the individual conference stations. Kozdon only *relays* one audio stream – its selected dominant stream, while *generating and transmitting* an additional mixed stream. The term *relayed* excludes mixing, since relay implies transmission unchanged save for combination into the composite stream.

Parent Claim 8, as amended, requires that the mixing performed on each conferencing station exclude audio from that conferencing station. This feature is not found in Kozdon or Kuthyar. Please see the argument below with respect to Claims 6, 8, 11, and 12 as to why the amended claim 8 is not obvious over Robert, U.S. Patent 6327276.

The combination of Kozdon in view of Kuthyar would therefore fail to produce the invention as claimed in amended claims 3 and 10 because the combination fails to produce the invention as claimed in their parent claims 1 and 8.

#### **Claims 4 and 5**

The Examiner rejected Claim 4 stands rejected under 35 U.S.C. 103 as being obvious over Kozdon in view of Everett, U.S. Patent 5864816. Claim 5 is dependent upon claim 4, and is rejected in further view of Memhard.

Everett provides a method for efficiently mixing two compressed audio streams without decoding the streams.

Claim 4 as amended through amendments to its parent claims, requires relaying multiple streams from conferencing stations. This element is missing Kozdon, and is therefore missing in Kozdon in view of Everett. Further, Claim 4 as amended requires that the composite stream be generated without the mixing of Everett.

An inventor inspired by Kozdon and Everett will therefore not produce the claimed invention of claim 4 or dependent claim 5.

#### **Claim 6, also Amended Claims 8, 11, and 12**

Former claim 6 was rejected over Kozdon in view of Everett and Robert, U.S. Patent 6327276.

Robert provides a conferencing system having a server on which multiple audio signals received from conference stations are combined into a mixed audio and transmitted as a “multicast signal” to conference stations. Robert also has (Robert, abstract) “an echo controller for estimating and removing, from the multicast signal, a signal component corresponding to a signal transmitted from that client.”

Applicant admits that Robert teaches the desirability of reducing the contribution of audio originated by a conference station in that conference station’s own audio output.

The system of Robert performs that reduction in a way that is considerably more complex than Applicant’s system as claimed. A conference station of Robert first encodes and sends its originated audio to a server. The server decodes and mixes audio from multiple conference stations, and transmits this mixed audio back to the conference stations. The conference station must estimate a trip delay through network and server. It must then store and delay its originated audio by that trip delay, then must estimate a multiplier and scale the delayed originated audio by that multiplier. Finally, it must subtract the scaled, delayed, audio from the mixed audio to remove it from its own audio output.

An inventor inspired by Kozdon and Robert can apply the echo cancellation of Robert to cancelling a station’s own originated audio from the mixed audio of Kozdon.

An inventor inspired by Kozdon and Robert has a further problem.

The dominant audio stream of Kozdon may switch without warning to become a copy of own originated audio, and then may switch to being audio from another conference station. Kozdon teaches that audio output should be a combination (a mix) of this dominant stream and Kozdon or Robert’s mixed audio. Neither Kozdon nor Robert teach how the resulting effect on echo cancellation of these stream switches can be eliminated.

An inventory inspired by Kozdon and Robert will therefore not produce the currently claimed invention, but rather an inoperable mélange needing further invention to overcome problems generated by the combination.

Applicant’s system does not create a mixed “multicast” audio. Rather, applicant’s claimed system creates separate mixed audio signals at each conference station, each of which excludes that station’s own originated audio by ignoring own originated audio streams.

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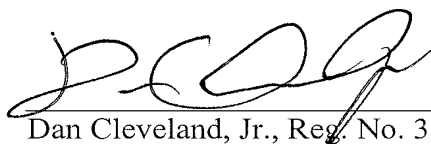
This is a far simpler method for echo elimination than that proposed by Robert, since it operates not by cancellation, but by exclusion.

### **CONCLUSIONS**

Applicant submits that the foregoing revisions to the figures, amendments to the claims, and arguments have overcome the Examiner's objections and rejections. Applicant respectfully requests that the Examiner reconsider this application as amended.

It is believed that no fees are due in connection with this amendment. If any additional fee is due, please charge Deposit Account No. 08-2025.

LATHROP & GAGE LLC

A handwritten signature in black ink, appearing to read 'D. Cleveland, Jr.', is written over a horizontal line.

Dan Cleveland, Jr., Reg. No. 36,106  
4845 Pearl East Circle, Suite 300  
Boulder, Colorado 80301  
Tel No: (720) 931-3027  
Fax No: (720) 931-3001